

ABSTRACT

5 The present invention discloses a resistor supported on a metal plate composed of a low temperature coefficient of resistance (TCR) metallic material. The resistor includes at least two electrode columns composed of the low TCR metallic material disposed on the metal plate. The resistor further includes at least an electrode layer disposed on each of the electrode columns to form an electrode for each of the electrode columns. In a preferred embodiment, the low TCR metallic material composed of the metal plate further comprises a nickel-copper alloy. In 10 another preferred embodiment, the electrode layer disposed on each of the electrode columns further comprises a copper layer and a tin-lead alloy layer on each of the electrode columns. In another preferred embodiment, the electrode columns disposed on the metal plate having a precisely defined position for providing precisely defined resistance for 15 the resistor ranging between one milli-ohm to one ohm.